

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

Applicants gratefully appreciate the courtesies extended to Applicants' representative by the Examiner during the personal interview. The point discussed are incorporated into the following remarks.

I. The Claims Satisfy All Formal Requirements

Although not objected to by the Examiner, claims 1, 2 and 4 are amended to correct informalities and for the purpose of clarification. Further, claim 8 is amended to clarify the term "center locus" of measurement data as supported by page 20, lines 3-4 of the Specification. No new matter has been added.

II. The Claims Define Allowable Subject Matter

The Office Action rejects claims 4 and 7-12 under 35 U.S.C. §102(b) as unpatentable over PCT Publication WO 90/12277 to Bielle et al. (hereinafter "Bielle"); claims 4 and 6 under 35 U.S.C. §102(b) as unpatentable over U.S. Patent No. 5,408,750 to Teng et al. (hereinafter "Teng"); and claim 1 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,154,713 to Peter et al. (hereinafter "Peter"). The rejections are respectfully traversed.

Claims 1, 4 and 8, as amended, distinguish over the prior art in that it includes language directed towards the movement of a workpiece orientation adjustment stage, as suggested by the Examiner by clarifying the movement of the workpiece with respect to the movement of the workpiece orientation adjustment stage.

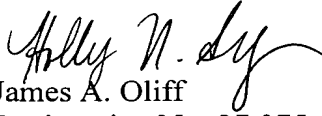
For at least these reasons, it is respectfully submitted that claims 1, 4 and 8 are distinguishable over the applied art. Claims 2-3, 5-7 and 9-12, which depend from claims 1, 4 and 8, are likewise distinguishable over the applied art for at least the reasons discussed as well as for the additional features they recite. Withdrawal of the rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) is respectfully requested.

III. Conclusion

For at least the reasons discussed above, it is respectfully submitted that this application is in condition for allowance.

Should the Examiner believe that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,


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Attachment:
Appendix

Date: April 4, 2002

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APPENDIX

Changes to Claims:

Claims 1, 2, 4 and 6-8 are amended.

The following are marked-up versions of the amended claims:

1. (Amended) A surface texture measuring machine for measuring a surface texture of a workpiece held on a workpiece orientation adjustment stage, the workpiece having an edge line ~~and~~, the workpiece orientation adjustment stage being movable in a measurement direction (X-axis direction) and in a direction (Y-axis direction) orthogonal with the X-axis direction within a horizontal plane and rotatable in a X-Y plane, the workpiece orientation adjustment stage being capable of seesawing in a direction (Z-axis direction) orthogonal with the X-axis direction within a perpendicular plane, and the surface texture of the workpiece being scanned by a sensor movable in the X-axis direction after adjusting orientation of the workpiece orientation adjustment stage, the surface texture measuring machine comprising:

a measurement controller for adjusting the orientation of the workpiece, orientation adjustment stage; and

a measurement means being controlled by the measurement controller, the measurement controller comprising: a surface texture measurement controller for measuring the surface texture of the workpiece; a X-axis coordinates input means for inputting X-axis coordinates at a measurement start point and a measurement end point in adjusting the orientation of the workpiece orientation adjustment stage; a Y-axis coordinates input means for inputting Y-axis coordinates at a measurement start point and a measurement end point in adjusting the orientation of the workpiece orientation adjustment stage; a swivel correction angle calculation means for calculating a swivel ~~inclination~~ angle (an ~~inclination~~ angle within the X-Y plane relative to X-axis) and a swivel correction angle

from the X-axis coordinates inputted by the X-axis coordinates input means and the Y-axis coordinates inputted by the Y-axis coordinate input means; and a swivel correction angle display for displaying the swivel correction angle calculated by the swivel correction angle calculation means,

the measurement means comprising: a Y-axis adjustment means for adjusting orientation of the workpiece orientation adjustment stage by manually displacing the workpiece orientation adjustment stage in the Y-axis direction in accordance with the swivel correction angle displayed on the swivel correction angle display; and a swivel adjustment means for manually rotating the workpiece orientation adjustment stage within the X-Y plane to adjust orientation thereof.

2. (Amended) The surface texture measuring machine according to Claim 1, the measurement controller further comprising: a Z-axis coordinates input means for inputting Z-axis coordinates of the workpiece at the measurement start point and the measurement end point in adjusting orientation of the workpiece orientation adjustment stage; an inclination correction calculation means for calculating an inclination angle within a X-Z plane and an inclination correction amount from the X-axis coordinates and the Z-axis coordinates inputted by the Z-axis coordinates input means; and an inclination correction display for displaying inclination correction amount calculated by the inclination correction calculation means, wherein

————the measurement means further ~~comprising~~ comprises an inclination adjustment means for manually displacing the workpiece orientation adjustment stage in Z-axis direction in accordance with the inclination correction amount calculated by the inclination correction calculation means for adjusting orientation thereof.

4. (Amended) An ~~orientation-orientation~~ adjustment method of a workpiece using a surface texture measuring machine, the workpiece having an edge line ~~and, the~~

workpiece orientation adjustment stage being movable in a measurement direction (X-axis direction) and in a direction (Y-axis direction) orthogonal with the X-axis direction within a horizontal plane and rotatable in a X-Y plane, the workpiece orientation adjustment stage being capable of seesawing in a direction (Z-axis direction) orthogonal with the X-axis direction within a perpendicular plane, and the surface texture of the workpiece being scanned by a sensor movable in the X-axis direction after adjusting orientation of the workpiece orientation adjustment stage, the orientation adjusting method comprising the steps of:

measuring positions of the workpiece relative to the sensor at a measuring start point and a measurement end point;

calculating orientation of the workpiece from the positions to obtain an orientation correction amount;

displaying or printing the orientation correction amount; and

operating an adjustment means of the workpiece orientation adjustment stage to correct the orientation of the workpiece.

6. (Amended) The orientation-adjusting method according to Claim 4, wherein the orientation of the workpiece is conducted by rotating the workpiece orientation adjustment stage on the X-Y plane relative to the sensor.

7. (Amended) The orientation-adjusting method according to Claim 4, wherein the orientation of the workpiece is adjusted by seesawing the workpiece orientation adjustment stage on the X-Z plane relative to the sensor.

8. (Amended) An leveling device for a surface texture measuring machine, the surface texture measuring machine comprising: a displacement detecting means movable in a measurement direction (X-axis direction) for measuring displacement on a surface of a workpiece; and a moving means for moving the displacement detecting means in the

measurement direction to scan a displacement signal from the displacement detecting means, the surface texture measuring machine adjusting an amount of ~~the~~ a workpiece stage relative to a base line as a movement locus of the displacement detecting means, the leveling device comprising:

a fulcrum during measurement and adjustment and a point of action working relative to the fulcrum;

a manipulated valuable calculation means for scanning the surface of the workpiece by the displacement detecting means and for calculating a center locus, an inclination of the surface of the workpiece, of measurement data based on a displacement signal from the displacement detecting means to calculate a operation amount at the point of action relative to the fulcrum required for paralleling the center locus with the base line of the moving means;

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an output means for displaying, printing or outputting as data the operation amount; and

an inclination adjustment means for manually adjusting inclination of a predetermined amount.